

CLAIMS:

1. Device for scanning a track on a record carrier, the track comprising marks representing information, the device comprising

a head for scanning the track and generating a read signal,

a read unit for retrieving the information from the read signal,

5 a jitter detecting unit for detecting an amount of jitter in the read signal due to signal components corresponding to the marks,

tilt control means for compensating a tilt angle between the head and the record carrier, and

wobble means for providing a wobble signal to the tilt control means,

10 the jitter detecting unit being arranged for generating a tilt error signal in dependence on the amount of jitter in the read signal and the wobble signal, and the tilt error signal being coupled to the tilt control means for constituting a tilt control loop.

2. Device as claimed in claim 1, wherein the wobble means is arranged for

15 providing the wobble signal in the form of a periodical wobble signal, in particular a sinusoidal wobble signal.

3. Device as claimed in claim 2, wherein the device comprises drive means for rotating the record carrier at a rotation frequency and wherein the wobble means is arranged

20 for adjusting the periodical wobble signal in dependence of the rotation frequency.

4. Device as claimed in claim 2, wherein the device comprises drive means for rotating the record carrier at a rotation frequency and wherein the wobble means is arranged for establishing a predefined ratio between the rotation frequency and frequency of the

25 periodical wobble signal, the ratio being predefined for separating tilt frequency components that are indicative of the tilt angle from difference frequency components between the rotation frequency and frequency of the periodical wobble signal.

5. Device as claimed in claim 4, wherein the predefined ratio between the rotation frequency and the periodical wobble signal is substantially equal to $(0.5 * n + 0.25)$, n being an integer ≥ 0 , in particular the ratio being substantially equal to 0.75 or 1.25.

5 6. Device as claimed in claim 3, wherein the wobble means is arranged for detecting one of a multitude of ranges of rotation frequency and for adjusting the frequency of the periodical wobble signal to the detected range, in particular for detecting a low speed mode or a high speed mode and correspondingly setting a ratio of substantially 1.25 or 0.75 between the rotation frequency and the frequency of the periodical wobble signal.

10 7. Device as claimed in claim 1, wherein the jitter detecting unit is arranged for generating the tilt error signal by detecting the amount of jitter in the read signal synchronously with the wobble signal.

15 8. Device as claimed in claim 1, wherein the jitter detecting unit comprises a filter unit for low pass filtering the tilt error signal, in particular the low pass filter having at least one substantially zero transfer function at a difference frequency component between the rotation frequency and frequency of the periodical wobble signal.

20 9. Device as claimed in claim 1, wherein the device comprises a write unit for recording information in the track via the head, and the tilt control means is arranged for reading a part of the track in or near the track to be recorded for determining a local tilt error signal and applying the local tilt error signal during subsequent recording.

25 10. Device as claimed in claim 10, wherein the device comprises a video encoding unit for receiving video data and providing encoded video as information to be recorded.

11. Method of scanning a track on a record carrier, the track comprising marks representing information, the method comprising scanning the track via a head for generating
30 a read signal, detecting an amount of jitter in the read signal due to signal components corresponding to the marks, compensating a tilt angle between the head and the record carrier, providing a wobble signal to wobble the tilt angle, generating a tilt error signal in dependence on the amount of jitter in the read signal and the wobble signal, and compensating the tilt angle based on the tilt error signal.